

BID FORM

MISSOURI DEPARTMENT OF TRANSPORTATION
PURCHASING DEPARTMENT
3025 East Kearney Street
Springfield, MO

REQUEST NO.	D8PP-9041		
DATE	April 27, 2009		
PAGE NO.	1	NO. OF PAGES	24

SEALED BIDS, SUBJECT TO THE ATTACHED CONDITIONS WILL BE RECEIVED AT THIS OFFICE UNTIL

1:00 p.m., Local Time, May 14, 2009

AND THEN PUBLICLY OPENED AND READ FOR FURNISHING THE FOLLOWING SUPPLIES OR SERVICES.

BIDS TO BE BASED F.O.B. MISSOURI DEPARTMENT OF TRANSPORTATION

Submit net bid as cash discount stipulations will not be considered

See Attached

DEFINITE DELIVERY DATE SHOULD BE SHOWN. SIGN AND RETURN BEFORE TIME SET FOR OPENING. **ALL BIDS MUST BE EXTENDED AND TOTALED.**

BUYER: Andy McNeill, CPPB
BUYER EMAIL:
Andrew.McNeill@modot.mo.gov

BUYER TELEPHONE: 417-895-7645

SUPPLIES OR SERVICES

To establish a contract to furnish "Slide Repair" on MoDOT right of way and easements along Business 65/Route 14 in Christian County, MO in accordance with the following pages.

Components of Agreement:

The Agreement between MHTC and the successful Bidder shall consist of: the RFB and any written amendments thereto, the "Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions" that are attached to this RFB, the bid submitted by the bidder in response to the RFB and the post-award contract agreement signed between the parties. However, MHTC reserves the right to clarify any relationship in writing and such written clarification shall govern in case of conflict with the applicable requirements stated in the RFB or the Bidder's bid. The Bidder is cautioned that its bid shall be subject to acceptance by MHTC without further clarification.

Return sealed bid to the address shown at the top of this page.

(SEE ATTACHED FOR CONDITIONS AND INSTRUCTIONS)

In compliance with the above Request for bid, and subject to all conditions thereof, the undersigned bidder agrees to furnish and deliver any or all the items on which prices were quoted within the timeframe specified herein.

Date: _____
Telephone No.: _____
Fax No.: _____
Federal I.D. No. _____

Firm Name: _____
Address: _____
By (Signature): _____
Type/Print Name _____
Title: _____

Is your firm MBE certified?

Yes No

Is your firm WBE certified? Yes No

1. INTRODUCTION AND GENERAL INFORMATION

Introduction:

This Request For Bid seeks bids from qualified organizations to provide services for the repair of an earth slide and construction of a retaining wall on MoDOT right of way and easements along Business 65/Route 14 in Christian County, MO, to the Missouri Highways and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT) District 8. Each bid must be mailed in a sealed envelope to Andy McNeill, District 8 Purchasing Department, 3025 East Kearney Street, Springfield, MO 65803, or hand-delivered in a sealed envelope to the Purchasing Department in the District 8 Missouri Department of Transportation General Services Building located at 3025 East Kearney Street, Springfield, Missouri 65803. All questions regarding the RFB shall be submitted to Andy McNeill at 417-895-7645 or Andrew.McNeill@modot.mo.gov. Bids must be returned to the office of Andy McNeill no later than 1:00 p.m., local time, May 14, 2009

RFB Coordinator:

Andy McNeill, CPPB

Missouri Department of Transportation

3025 East Kearney Street

Springfield, MO 65803

PHONE: 417-895-7645

FAX: 417-895-6704

EMAIL: Andrew.McNeill@modot.mo.gov

1. General Information

1.1 General Information:

- 1.2.1 This document constitutes an invitation for competitive, sealed bids for the procurement of services for the repair of an earth slide and construction of a retaining wall on MoDOT right of way and easements along Business 65/Route 14 in Christian County, MO, as set forth herein.
- 1.2.2 Organization – This document, referred to as a Request for Bid (RFB), is divided into the following parts:
 - 1) Introduction and General Information
 - 2) Scope of Work
 - 3) Bid Submission
 - 4) Pricing Page(s)
 - 5) Signature Page(s)
 - 6) Terms and Conditions
 - 7) Exhibit(s)

- 1.2.3. Note to Respondent – A vendor must be in compliance with the laws regarding conducting business in the State of Missouri. The compliance to conduct business in the state shall include but may not be limited to: Registration of business name, vendors MUST submit a bid that correctly and accurately identifies the company name that is registered to do business in the State of Missouri. All vendors who are required to execute a contractual agreement MUST submit a copy of their certificate with the signed copy of the contract agreement before the purchasing department can proceed with MoDOT legal contract approval.
- 1.2.4 Pursuant to 285.530 RSMo, the bidder must affirm its enrollment and participation in a federal work authorization program with respect to the employees proposed to work in connection with the services requested herein by
- submitting a completed, notarized copy of EXHIBIT “G”, AFFIDAVIT OF WORK AUTHORIZATION and
 - providing documentation affirming the bidder’s enrollment and participation in a federal work authorization program (see below) with respect to the employees proposed to work in connection with the services requested herein.

E-Verify is an example of a federal work authorization program. Acceptable enrollment and participation documentation consists of **completed** copy of the E-Verify Memorandum of Understanding (MOU). For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is available at http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm.

2. SCOPE OF WORK

2.1 General Requirements:

- 2.1.1 The contractor shall provide services for repair of an earth slide and construction of a retaining wall on MoDOT right of way and easements along Business 65/Route 14 in Christian County, MO, for the Missouri Highway and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT), in accordance with the provisions and requirements stated herein.
- 2.1.2 The contractor shall provide all services to the sole satisfaction of MoDOT.

2.2 Specific Requirements:

- 2.2.1 The contractor shall provide work for the repair of an earth slide and construction of a retaining wall on MoDOT right of way and easements along Business 65/Route 14 in Christian County, MO.
- 2.2.2 The contractor shall provide the equipment and manpower necessary to excavate approximately +/-1372 cubic yards of earthen materials that have slide on existing right of way, construct an engineer approved retaining wall, backfill against wall, and re-grade slope to MoDOT recommendations as per the attached letter and drawings from MoDOT Construction – Materials dated December 11, 2008.

- 2.2.3 Retaining wall design shall be submitted with bid. Wall shall be a Gabion Faced MSE Wall or a MSE block wall. Wall design shall be designed and approved by a professional engineer. The wall face shall be a minimum of 10 feet from the vertical rock face.
- 2.2.4 Backfilling shall be performed in accordance with applicable portions of Sec 203 and compacted in accordance with Sec 203.5 of the Missouri Standard Specifications for Highway Construction unless otherwise designated by the engineer. Final fill yardage shall be dependant on retaining wall design. Final slope shall be no steeper than 2.25:1 above wall. Excavated material may be used to reconstruct slope.
- 2.2.5 All disturbed erodible surfaces shall be seeded and mulched in accordance with Sec 800 of the Missouri Standard Specifications for Highway Construction. **Seed mixture will be provided by MoDOT.**
- 2.2.6 Contractor to coordinate work zones/lane closures with contractor responsible for project at U.S. 65 and MO14 project currently under construction.
- 2.2.7 Contractor shall be required to acquire permission from adjoining landowners if access to project area requires equipment to operate off of state right of way. Contractor shall be required to return any landscaping or property to private landowners complete satisfaction.

2.3 Project Contact

2.3.1 All questions concerning this project shall be forwarded to the project contact person listed below.

Burt Pitchford, P.E.
 Area Engineer
 Missouri Department of Transportation
 District 8, 251 S.W. Outer Road
 Branson, MO 65616
 Phone: 417-335-3089 Fax: 417-335-5737
e-mail Burt.Pitchford@modot.mo.gov

The project contact may designate another project contact in writing to the contractor.

2.4 Schedule of Work

The contractor shall begin work upon receiving notification from MoDOT that the executed contract has been finalized. Once work has started the contractor shall complete the work within twenty (20) calendar days minus holidays. The contractor shall notify the project contact in writing or by e-mail one week prior to beginning work. No work will be performed on **holidays** unless specifically authorized by the project contact.

The following days shall be construed as **official holidays** under the terms of the contract:

- | | |
|--------------------------|------------------------------------|
| January 1 | New Year's Day |
| Third Monday in January | Martin Luther King, Jr.'s Birthday |
| February 12 | Lincoln's Birthday |
| Third Monday in February | Washington's Birthday |
| May 8 | Truman's Birthday |

Last Monday in May	Memorial Day
July 4	Independence Day
First Monday in September	Labor Day
Second Monday in October	Columbus Day
November 11	Veteran's Day
Fourth Thursday in November	Thanksgiving Day
December 25	Christmas Day

2.5 Traffic Control

2.5.1 **Description.** Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.

2.5.1 Traffic Management Schedule

2.5.1.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, hours traffic control will be in place, and work hours.

2.5.1.2 The contractor shall notify the Project Contract, Burt Pitchford, (417) 335-3089, forty-eight (48) hours prior to lane closures, traffic shifts or detours. The contractor shall designate a contact person who is available for the duration of the work to resolve any traffic impact issues resulting from the contractor's operations.

2.5.1.3 The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.

2.5.1.4 In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

2.5.1.5 The contractor shall be responsible for maintaining the existing traffic flow through the job site during construction. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from occurring again.

2.5.1.6 All lanes of traffic shall be opened to traffic during non-working hours. Access shall be maintained to all businesses, side roads and entrances along the project at all times during construction or as approved by the engineer.

2.6 Work Hour Restrictions.

2.6.1 The contractor shall not perform any construction operation on the active lanes within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

2.6.2 Work may be performed during nighttime hours. No separate pay will be considered for nighttime work for this project.

2.6.3 The contractor is responsible for all necessary traffic control and lighting if needed.

2.7 Detours and Lane Closures.

2.7.1 At least one lane of traffic in each direction on travel shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to halt traffic will be designated by the engineer.

2.5 Utilities

2.5.1 It is the inherent risk of the work under this contract that the Contractor may encounter utilities above and/or below the ground or in the vicinity of any given work order which may interfere with their operations. The Contractor expressly acknowledges and assumes this risk even though the nature and extent is unknown to both the Contractor and the Commission at the time of bidding and award of the contract. The effect in cost or time of the presence of utilities above, below or in the vicinity of the Contractor's work under this contract shall not be compensable.

2.5.2 The Contractor will be responsible and is required to call for utility locates prior to performing any excavation work within any project limits for a given work order. Calling for utility locates will not relieve the Contractor of his liability for utility damages caused by excavating operations performed by the Contractor and/or any of his subcontractors. The Contractor shall be solely responsible for all costs, fines, and penalties associated with the repair of any damaged utility caused by the actions of the Contractor and/or any subcontractor within the given work order limits.

2.5.3 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

2.5.4 Any representation of the presence of utilities on any bidding document provided or work order issued under this contract is disclaimed by the Commission. The Contractor fully understands this disclaimer when determining the basis of their bid for this contract. The Contractor agrees to hold the Commission harmless in the presents or absents of any utility within the limits of any work order resulting from this contract.

2.6 Insurance Requirements

2.6.1 Prior to contract signing, the Offeror may be asked about its ability to provide certificates of insurance which meet, or approach, the following coverage's:

- | | |
|----------------------|---|
| a. General Liability | Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence; |
|----------------------|---|

- b. Automobile Liability Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
- c. Missouri State Workmen's Compensation policy or equivalent in accordance with state law.

2.7 Invoicing and Payment Requirements:

- 2.7.1 The contractor shall submit, on the contractor's letterhead, an invoice in triplicate to MoDOT District 8 for compensation due.
- 2.7.2 The contractor must submit all invoices for the services specified herein **by no later than thirty (30) calendar days after completion.**
 - a. In the event that the contractor does not submit all invoices by thirty (30) calendar days after completion, the contractor shall understand and agree that the contractor may not receive payment for services.
- 2.7.3 The contractor shall be paid in accordance with the firm, fixed price specified on the Pricing Page of this document for all services performed satisfactorily, and performed in accordance with the contractual requirements specified herein. However, the contractor shall understand and agree that under no circumstance shall the contractor be paid in excess of the firm, fixed price stated on the pricing page of this document.
 - a. The contractor shall understand and agree that no partial payment shall be paid to the contractor for incomplete work.
- 2.7.4 Other than the payment specified above, no other payments or reimbursements shall be made to the contractor for any reason whatsoever.

2.8 Other Contractual Requirements:

- 2.8.1 General Wage Order: The contractor shall be required to comply with the General Wage Order as fixed by the Missouri Department of Labor and Industrial Relations, in effect as of the date of the issuance of the solicitation, for each affected craft and type of workmen in Jasper County. The **General Wage Order #52** may be inspected at any District Office or at the Central Office in Jefferson City, MO.
 - a. The contractor shall submit notarized weekly payroll affidavit documentation included with the project request for payment. The successful vendor must provide a lien waiver from all material suppliers.
- 2.8.2 Collusion: The MoDOT monitors all procurement activities to detect any possibility of deliberate restraint of competition, collusion among bidders, price-fixing by bidders, or any other anticompetitive conduct by bidders, which appears to violate state and federal antitrust laws. Any suspected violation shall be referred to the Missouri Attorney General's Office for appropriate action.

- 2.8.3 The contractor understands and agrees that by signing the RFB document or contract, they certify the following:
- a. The contractor shall only utilize personnel authorized to work in the United States in accordance with applicable federal and state laws. This includes but is not limited to the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and INA Section 274A.
 - b. If the contractor is found to be in violation of this requirement or the applicable state, federal and local laws and regulations, and if the State of Missouri has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States, the state shall have the right to cancel the contract immediately without penalty or recourse and suspend or debar the contractor from doing business with the state.
 - c. The contractor agrees to fully cooperate with any audit or investigation from federal, state or local law enforcement agencies.
 - d. In addition, the contractor shall maintain enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services included herein.

3 BID SUBMISSION

3.1 Bid Submission Information:

3.1.1 Proposal/Bid Guaranty/Contract Bond:

- a. Each bid shall be accompanied by a Bid Bond, Certified Check, Cashier's Check or Bank Money Order payable to the Director of Revenue--Credit State Road Fund for an amount equal to Five (5) Per Cent of the amount of the BID submitted, as a guarantee that the bidder, if awarded the contract, will furnish an acceptable performance and payment bond (Contract Bond) or a cashier's check, a bank money order or a certified check made payable to "Director of Revenue--Credit State Road Fund" in an amount equal to One Hundred (100%) of the contract price.
- b. If a BID BOND is used (in lieu of a certified check, cashier's check, or bank money order), it must be in the form provided and executed by the bidder as principal and by a surety company authorized to do business in the State of Missouri as surety. The agent executing the same on behalf of the surety company must attach a current Power of Attorney setting forth his authority to execute the bond involved.
- c. Certified Checks, Cashier's Checks or Bank Money Orders of unsuccessful bidders will be returned as soon as the award is made. The checks or bank money orders of the successful bidder will be retained until the contract is executed and a satisfactory Performance and Payment bond (Contract Bond) is furnished. Bid Bonds will not be returned except on specific request of the bidder.

3.1.2 Failure to Execute Contract:

- a. Failure to execute the contract and file acceptable performance payment (Contract Bond)

or cashier's check, bank money order or certified check within **15 days** after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the bid guaranty. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised and performed under contract or otherwise, as the Commission may decide. No contract shall be considered effective until it has been executed by all parties thereto.

- 3.1.3 All bids must be received in a sealed envelope clearly marked "**D8PP-9041 Slide Repair**".
- 3.1.4 All bids must be received at the following address no later than May 14, 2009 at 1:00 p.m., local time.

Missouri Department of Transportation
Purchasing Department – District 8
Attn: Andy McNeill
3025 East Kearney Street
Springfield, MO 65803

- 3.1.5 The contractor shall submit one (1) bid. The bid shall be a lump sum amount for the repair of an earth slide and construction of a retaining wall MoDOT right of way and easements along Business 65/Route 14 in Christian County, MO.

- 3.1.6 Contract Award – The contract will be awarded to the lowest responsive bidder determined as specified above.

- a. Award of this bid will be made by using the "lowest and best" principle of award, providing the prices are acceptable to the Commission. In the event of tie low bids, the Commission reserves the right to establish the method to be used in determining the award.

- b. Award of bid will be contingent upon receipt of all required documentation and certificates.

- 3.1.7 Cost Determination – The low bid shall be determined by the "Lump Sum Amount" quoted.

- 3.1.8 The bidder may withdraw, modify or correct his bid after it has been deposited with the Department provided such request is submitted in writing and received at the location designated for the bid opening prior to the time specified for opening bids. Such a request received as specified will be attached to the bid and the bid will be considered to have been modified accordingly. No bid may be modified after the time specified for the opening of bids.

- 3.1.9 Open Competition / Request For Bid Document:

- a. It shall be the bidder's responsibility to ask questions, request changes or clarification, or otherwise advise MoDOT if any language, specifications or requirements of an RFB appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the RFB to a single source. Any and all communication from bidders regarding specifications, requirements, competitive bid process, etc., must be directed to the buyer from MoDOT, unless the RFB specifically refers the bidder to another contact. Such communication should be received at least three (3) working days prior to the official bid opening date. ***It is the sole responsibility of the bidder to access MoDOT's website in order to obtain any and all addenda(s) issued during the course of this RFB process.***

- b. Bidders are cautioned that the only official position of the State of Missouri is that which is issued by MoDOT in the RFB or an amendment thereto. No other means of communication, whether oral or written, shall be construed as a formal or official response or statement.
- c. MoDOT monitors all procurement activities to detect any possibility of deliberate restraint of competition, collusion among bidders, price-fixing by bidders, or any other anticompetitive conduct by bidders, which appears to violate state and federal antitrust laws. Any suspected violation shall be referred to the Missouri Attorney General's Office for appropriate action.

4 PRICING PAGE

4.1 Slide Repair Services, Business 65/Route 14 Christian County: The bidder shall provide firm, fixed prices in the table below for providing the services in accordance with the provisions and requirements of this RFB. All costs associated with providing the required services specified elsewhere herein must be included in the stated **LUMP SUM** price.

Slide Repair Services, Business 65/Route 14 Christian County		
	Description	Lump Sum <i>Firm, Fixed Price</i>
	Repair of an earth slide and construction of a retaining wall on MoDOT right of way and easements, as specified herein. <i>Location: Along Business 65/Route 14 in Christian County, MO.</i>	\$ _____

Signature

Date

Exhibit B
Slide Repair Services, Business 65/Route 14 Christian County

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____,
_____, as Principal and _____, as Surety are held and firmly bound
unto the **STATE OF MISSOURI** (acting by and through the **Missouri Highways and Transportation
Commission**) in the penal sum of:

Dollars
(\$ _____) to be paid to the **State of Missouri or to the Missouri Highways and
Transportation Commission**, to be credited to the State Road Fund, the Principal and Surety binding
themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these
presents.

Sealed with our seals and dated this _____

THE CONDITION OF THIS OBLIGATION is such that:

WHEREAS, the Principal is submitting herewith a bid to the Missouri Highways and Transportation
Commission for furnishing (**Slide Repair Services Business 65/Route 14, Christian County**) as set out in the bid
to which this bond is attached.

NOW THEREFORE, if the Missouri Highways and Transportation Commission shall accept the bid of the
Principal and if said Principal shall properly execute and deliver to the Missouri Highways and Transportation
Commission the contract and contract bond in compliance with the requirements of the proposal, the
specifications and the provisions of law, to the satisfaction of the Highways and Transportation Commission,
then this obligation shall be void and of no effect, otherwise to remain in full force and effect.

In the event the said Principal shall, in the judgment of the Missouri Highways and Transportation Commission,
fail to comply with any requirement as set forth in the preceding paragraph, then the State of Missouri acting
through the Missouri Highways and Transportation Commission shall immediately and forthwith be entitled to
recover the full penal sum above set out, together with court costs, attorney's fees and any other expense of
recovery.

(SEAL)

Principal

By

Signature

(SEAL)

Surety

By

Attorney-in-Fact

NOTE: This bond must be executed by the PRINCIPAL and by a CORPORATE SURETY
authorized to conduct surety business in the State of Missouri.

Exhibit C

ANTI-COLLUSION STATEMENT

STATE OF _____)

) SS.

COUNTY OF _____)

_____ being first

duly sworn, deposes and says that he is _____
Title of Person Signing

of _____

Name of Bidder

that all statements made and facts set out in the bid for the above project are true and correct; and that the bidder (The person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such bid or any contract which may result from its acceptance.

Affiant further certifies that bidder is not financially interested in, or financially affiliated with, any other bidder for the above project.

By _____

By _____

By _____

Sworn to before me this _____ day of _____, 20____.

Notary Public

My Commission Expires _____

Exhibit D
PREFERENCE IN PURCHASING PRODUCTS

DATE: _____

The bidders attention is directed to Section 34.076 RSMo 2000 which gives preference to Missouri corporations, firms, and individuals when letting contracts or purchasing products.

Bids/Quotations received will be evaluated on the basis of this legislation.

All vendors submitting a bid/quotation must furnish ALL information requested below.

FOR CORPORATIONS:

State in which incorporated: _____

FOR OTHERS:

State of domicile: _____

FOR ALL VENDORS:

List address of Missouri offices or places of business:

THIS SECTION MUST BE COMPLETED AND SIGNED:

FIRM NAME: _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

BY (signature required): _____

Federal Tax I.D. #: _____ **if no Federal Tax I.D. # - list Social Security #:** _____

NOTE: For bid to be considered, the "Preference in Purchasing Products" form must be on file in the General Services (Procurement) Division and must be dated in the current calendar year.

Exhibit E

MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT

The bidder's attention is directed to the Missouri Domestic Products Procurement Act, Sections 34.350 to 34/359, RsMO, which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured or produced in the United States.

Section 34.355, RsMO, requires the vendor or contractor to certify his compliance with Section 34.353 and, if applicable, Section 34.359, RsMO, at the time of bidding **and** prior to payment. Failure to comply with Section 34.353, RsMO, during the performance of the contract **and** to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

Section 34.353.2, RsMO, specifies that it does not apply where the total contract is less than Twenty-Five Thousand Dollars (\$25,000.00). If your total bid is Twenty-Five Thousand Dollars (\$25,000.00) or more, you **must** complete this form as directed below.

Failure to complete and return this document with this bid will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis. Please read the certification appearing below on this form.

[] If all the goods or products specified in the attached bid which the bidder proposes to supply to the State shall be manufactured or produced in the "United States" as defined in Section 34.350, RsMO, check the box at left.

[] If only one item of any particular goods or products specified in the attached bid is manufactured or produced in the "United States" as defined in Section 34.350, RsMO, check the box at left and list the items (or item number) here:

[] If any or all of the goods or products specified in the attached bid which the bidder proposes to supply to the State are **not** manufactured or produced in the "United States" as defined in Section 34.350, RsMO, then: (a) check the box at left; (b) list below, by item (or item number), the country other than the United States where each good or product is manufactured or produced; and (c) check the boxes to the left of the paragraphs below if applicable and list the corresponding items (or item numbers) in the spaces provided.

Item (or item number)	Location Where Item Manufactured or Produced

(attach an additional sheet if necessary)

[] The following specified goods or products cannot be manufactured or produced in the United States in sufficient quantities or in time to meet the contract specifications. Items (or item numbers): _____

[] The following specified goods or products must be treated as manufactured or produced in the United States, in accordance with an existing treaty, law, agreement, or regulation of the United States, including a treaty between the United States and any foreign country regarding export-import restrictions or international trade. Items (or item numbers): _____

CERTIFICATION

By submitting this document, completed as directed above, with a bid, the bidder certifies under penalty of making false declaration (Section 575.060, RsMO) that the information contained in this document is true, correct and complete, and may be relied upon by the State in determining the bidders qualifications under and in compliance with the Missouri Domestic Products Procurement Act.

The bidder's failure to complete and return this document with the bid as directed above will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis pursuant to Section 34.353.3(2), RsMO.

STANDARD SOLICITATION PROVISIONS

- a. The Missouri Department of Transportation (MoDOT) reserves the right to reject any or all bids/quotes/proposals, and to accept or reject any items thereon, and to waive technicalities. In case of error in the extension of prices in the bid/quote/proposal, unit prices will govern.
- b. All bids/quotes/proposals must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.
- c. By virtue of statutory authority, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown, within the State of Missouri.
- d. Time of delivery is a part of the consideration and, if not otherwise stated in the solicitation documents, must be stated in definite terms by the Bidder/Offeror and must be adhered to. If time varies on different items, the Bidder/Offeror shall so state.
- e. If providing bids/quotes/proposals for commodities, the Bidder/Offeror will state brand or make on each item. If bidding or proposing other than the make, model or brand specified, the manufacturer's name, model number or catalog number must be given.
- f. For bids/proposals of \$25,000 or more, no bids/proposals by telephone, telegram or telefax will be accepted.
- g. The date specified for the returning of bids/quotes/proposals is a firm deadline and all bids/quotes/proposals must be received at the designated office by that time. The Department does not recognize the U.S. Mail, Railway Express Agency, Air Express, or any other organization, as its agent for purposes of accepting proposals. All proposals arriving at the designated office after the deadline specified will be rejected.

GENERAL TERMS AND CONDITIONS

General Performance

- a. This work is to be performed under the general supervision and direction of the Missouri Department of Transportation (MoDOT) and, if awarded any portion of the work, the Contractor agrees to furnish at his own expense all labor and equipment required to complete the work, it being expressly understood that this solicitation is for completed work based upon the price(s) specified and is not a solicitation for rental of equipment or employment of labor by MoDOT, and MoDOT is to have no direction or control over the employees used by the Contractor in performance of the work.

Deliveries

- a. Unless otherwise specified on the solicitation documents or purchase order, suppliers shall give at least 24 hours advance notice of each delivery. Delivery will only be received between the hours of 8:00 a.m. to 3:00 p.m., Monday through Friday. Material arriving after 3:00 p.m. will not be unloaded until the following workday. No material will be received on Saturday, Sunday or state holidays.
- b. If the prices bid herein include the delivery cost of the material, the Contractor agrees to pay all transportation charges on the material as FOB - Destination. Freight costs must be included in the unit price bid and not listed as a separate line item.
- c. Any demurrage is to be paid by the Contractor direct to the railroad or carrier.

Nondiscrimination

- a. The Contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- b. All solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of the Contractor's obligations under this contract and the Regulations, will be relative to nondiscrimination on the grounds of race, color, or national origin.
 - 1) Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MoDOT shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - i. withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
 - ii. cancellation, termination or suspension of the contract, in whole or in part.

Contract/Purchase Order

- a. By submitting a bid/quote/proposal, the Bidder/Offeror agrees to furnish any and all equipment, supplies and/or services specified in the solicitation documents, at the prices quoted, pursuant to all requirements and specifications contained therein.
- b. A binding contract shall consist of: (1) the solicitation documents, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's proposal and/or submitted pricing, and (3) the MHTC's acceptance of the proposal and/or bid by purchase order or post-award contract.
- c. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized purchase order and/or notice to proceed.
- d. The contract expresses the complete agreement of the parties and performance shall be governed solely by the specifications and requirements contained therein. Any change, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the Contractor and the duly authorized representative of the MHTC, by a modified purchase order prior to the effective date of such modification. The Contractor expressly and explicitly understands and agrees that no other method and/or no other document, including correspondence, acts, and oral communications by or from any person, shall be used or construed as an amendment or modification.

Subcontracting

- a. It is specifically understood that no portion of the material or any interest in the contract, shall be subcontracted, transferred, assigned or otherwise disposed of, except with the written consent of MoDOT. Request for permission to subcontract or otherwise dispose of any part of the work shall be in writing to MoDOT and accompanied by documentation showing that the organization which will perform the work is particularly

experienced and equipped for such work.

- b. Consent to subcontract or otherwise dispose of any portion of the work shall not be construed to relieve the Contractor of any responsibility for the production and delivery of the contracted work and the completion of the work within the specified time.
- c. All payments for work performed by a subcontractor shall be made to the Contractor to whom the contract was awarded and the purchase order issued.

Invoicing and Payment

- a. MoDOT is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the Contractor may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Project Tax Exemption Certificate will be furnished to the successful Bidder/Offeror upon request if applicable.
- b. Each invoice should be itemized in accordance with items listed on the purchase order and/or contract. The statewide financial management system has been designed to capture certain receipt and payment information. Therefore, each invoice submitted must reference the purchase order number and must be itemized in accordance with items listed on the purchase order. Failure to comply with this requirement may delay processing of invoices for payment.
- c. Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The Missouri Highways and Transportation Commission (MHTC) shall not make any advance deposits.
- d. The MHTC assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any authorized quantity is subject to the MHTC's rejection and shall be returned at the Contractor's expense.
- e. The MHTC reserves the right to purchase goods and services using the state-purchasing card.

Applicable Laws and Regulations

- a. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MoDOT a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
 - 1) Prior to the issuance of a purchase order and/or notice to proceed, all out-of-state Contractors providing services within the state of Missouri must submit to MoDOT a copy of their current Transient Employer Certificate from the Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.
- c. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.

Executive Order

- a. The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.
 - 1) "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
 - 2) In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
 - 3) The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Preferences

- a. In the evaluation of bids/quotes/proposals, preferences shall be applied in accordance with Chapter 34 RSMo. Contractors should apply the same preferences in selecting subcontractors.
- b. By virtue of statutory authority, RSMo. 34.076 and 34.350 to 34.359, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, made or grown within the State of Missouri. Such preference shall be given when quality is equal or better and delivered price is the same or less.
 - 1) If attached, the document entitled "PREFERENCE IN PURCHASING PRODUCTS" should be completed and returned with the solicitation documents.
 - 2) If attached, the document entitled "MISSOURI DOMESTIC PRODUCTS PROCUREMENT ACT" should be completed and returned with the solicitation documents. **Applies if bid is Twenty-Five Thousand Dollars (\$25,000.00) or more.**
- c. By virtue of statutory authority, RSMo 34.074, a preference will be given all contracts for the performance of any job or service to service-disabled veteran business either doing business as Missouri firms, corporations, or individuals; or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less or whenever competing bids, in their entirety, are comparable.
 - 1) If attached, the document entitled "MISSOURI SERVICE-DISABLED VETERAN PREFERENCE" should be completed and returned with the solicitation documents.
- b. In the event of a tie of low bids, the MHTC reserves the right to establish the method to be used in determining the award

Remedies and Rights

- a. No provision in the contract shall be construed, expressly or implied, as a waiver by the MHTC of any existing or future right and/or remedy available by law in the event of any claim by the MHTC of the Contractor's default or breach of contract.
- b. The Contractor agrees and understands that the contract shall constitute an assignment by the Contractor to the MHTC of all rights, title and interest in and to all causes of action that the Contractor may have under the antitrust laws of the United States or State of Missouri for which causes of action have accrued or will accrue as the result of or in relation to the particular equipment, supplies, and/or services purchased or produced by the Contractor in the fulfillment of the contract with the MHTC.
- c. In the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request MoDOT to enter into such litigation to protect the interests of the MHTC, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Cancellation of Contract

- a. The MHTC may cancel the contract at any time for a material breach of contractual obligations or for convenience by providing the Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.
- b. If the MHTC cancels the contract for breach, the MHTC reserves the right to obtain the equipment, supplies, and/or services to be provided pursuant to the contract from other sources and upon such terms and in such manner as the MHTC deems appropriate and charge the Contractor for any additional costs incurred thereby.

Bankruptcy or Insolvency

- a. Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntary or involuntary, or upon the appointment of a receiver, trustee, or assigned the benefit or creditors, the Contractor must notify MoDOT immediately. Upon learning of any such actions, the MHTC reserves the right, at its sole discretion, to either cancel the contract or affirm the contract and hold the Contractor responsible for damages.

Inventions, Patents, and Copyrights

- a. The Contractor shall defend, protect, and hold harmless the MHTC, its officers, agents, and employees against all suits of law or in equity resulting from patent and copyright infringement concerning the Contractor's performance or products produced under the terms of the contract.

Inspection and Acceptance

- a. No equipment, supplies, and/or services received by MoDOT pursuant to a contract shall be deemed accepted until MoDOT has had reasonable opportunity to inspect said equipment, supplies, and/or services.
- b. All equipment, supplies, and/or services which do not comply with the specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.
- c. The MHTC reserves the right to return any such rejected shipment at the Contractor's expense for full credit or replacement and to specify a reasonable date by which replacements must be received.
- d. The MHTC's right to reject any unacceptable equipment, supplies, and/or services shall not exclude any other legal, equitable or contractual remedies the MHTC may have.

Warranty

- a. The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by MoDOT, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (3) be merchantable, (4) be of good materials and workmanship, and (5) be free from defect.
- b. Such warranty shall survive delivery and shall not be deemed waived either by reason of the MHTC's acceptance of or payment for said equipment, supplies, and/or services.

Status of Independent Contractor

- a. The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

Indemnification

- a. The Offeror shall defend, indemnify and hold harmless the Commission, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Offeror's performance of its obligations under this Agreement.

SPECIAL TERMS AND CONDITIONS

Insurance

(1) Prior to contract signing, the Offeror may be asked about its ability to provide certificates of insurance which meet, or approach, the following coverages:

- | | |
|----------------------|---|
| a. General Liability | Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence; |
|----------------------|---|

- b. Automobile Liability Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
- c. Missouri State Workmen's Compensation policy or equivalent in accordance with state law.

Proposal/Bid Guaranty/Contract Bond

- a. Each proposal shall be accompanied by a Bid Bond, Certified Check, Cashier's Check or Bank Money Order payable to the Director of Revenue – Credit State Road Fund for an amount equal to Five Percent (5%) of the amount of the BID submitted. This is to act as a guarantee that the bidder, if awarded the contract, will furnish an acceptable performance and payment bond (Contract Bond) or a cashier's check, a bank money order or a certified check made payable to "Director of Revenue--Credit State Road Fund" in an amount equal to One Hundred (100%) of the contract price.
- b. If a BID BOND is used (in lieu of a certified check, cashier's check, or bank money order), it must be in the form provided and executed by the bidder as principal and by a surety company authorized to do business in the State of Missouri as surety. The agent executing the same on behalf of the surety company must attach a current Power of Attorney setting forth his authority to execute the bond involved.
- c. Certified Checks, Cashier's Checks or Bank Money Orders of unsuccessful bidders will be returned as soon as the award is made. The checks or bank money orders of the successful bidder(s) will be retained until the contract is executed and a satisfactory Performance and Payment (Contract Bond) is furnished. Bid Bonds will not be returned except on specific request of the bidder.

Information and Reports

- a. The Contractor shall provide all information and reports required by the Regulations, or Directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Missouri Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations or Directives. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information the Contractor shall so certify to the Missouri Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.

Prevailing Wage

- a. If the bid/quote/proposal is accepted, the vendor will be required to comply with the prevailing wages as fixed by the Missouri Department of Labor and Industrial Relations, in effect as of the date of the issuance of the solicitation, for each affected craft and type of workmen in the following county(ies): CHRISTIAN The Annual Wage Order # 52 may be inspected at any District Office or at the Central Office in Jefferson City, MO.
- b. The Contractor shall submit notarized weekly payroll affidavit documentation included with the project request for payment. The successful vendor must provide a lien waiver from all material suppliers.

Permits, Licenses and Safety Issues

- a. The contract price shall include any necessary permits and licenses required by law incidental to the work. Local ordinances requiring building permits are not applicable to state agencies.
- b. The Contractor will comply with local laws involving safety in the prosecution of the work.

Award

- a. Award of this bid/quote/proposal will be made on an "All Or Nothing" basis using the "lowest and best" principle of award.

Failure to Execute Contract

- a. Failure to execute the contract and file acceptable performance payment (Contract Bond) or cashier's check, bank money order or certified check within **15 days** after the contract has been mailed to the bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised and performed under contract or otherwise, as the Commission may decide. No contract shall be considered effective until it has been executed by all parties thereto.

Notice to Proceed

- a. Within **30 days** after the execution of the contract, a "Notice to Proceed" will be issued by the Department. A purchase order will be attached to the "Notice to Proceed," which will specify the date or dates that the Contractor can start delivery, roadway or stockpile delivery and will also include the completion dates. These dates will be in accordance with the dates shown in the proposal.

Temporary Suspension of Work

- a. The **District Engineer** shall have authority to suspend work wholly or in part for such period or periods as may be deemed necessary when weather or other conditions are such that in the opinion of the engineer, the work may be done at a later time with advantage to the Department or for failure on the part of the Contractor to comply with any of the provisions of the Contract.
- b. If the Department suspends the work for its own advantages and not because of the Contractor's failure to comply with the Contract, the Contractor will be allowed an equal number of calendar days after the completion date for the completion of the work. The Department may at its discretion give the Contractor an extension of time for completing the work where the Contractor incurs delays for causes beyond his control.
- c. Normal rainfall is not considered a cause qualifying for an extension of time. Claim for extension of time for all causes must be submitted by the Contractor in writing within **30 Days** after the claimed cause for the delay has ceased to exist.

Cancellation of Contract

- a. If the Contractor/supplier fails to carry out the performance of the work with sufficient workmen and equipment to insure the completion of the delivery within the time specified or becomes insolvent or is adjudicated a bankrupt or commits any act of bankruptcy or insolvency or allows any

final judgment to stand against him for a period of ten (10) days, the Missouri Department of Transportation may give notice in writing by registered mail to the Contractor/supplier and the surety of such delay, neglect or default.

- b. If, within ten (10) days after such notice the Contractor/supplier does not proceed to remedy to the satisfaction of the Department's representatives the faults specified in said notice, or the surety does not proceed to take over the deliveries, the Department shall have full power and authority, without impairing the obligation of the Contractor/supplier under the contract or the surety under the bond, to take over the completion of the work and arrange for the shipment of any materials necessary to complete the work and the Contractor/supplier and the surety will be responsible for any additional costs incurred by the Department in obtaining the completion of the deliveries.

Liquidated Damages

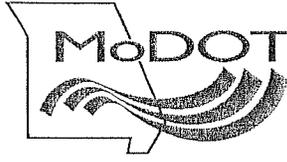
- a. In the event the successful Contractor fails to deliver the material within the time specified, the Department and the public will sustain damages because of such delay in delivery, the exact extent of which would be difficult to ascertain, and in order to liquidate such damage in advance it is agreed that the sum of one-hundred dollars (\$100.00) per day, per item, for each assessable calendar day on which the delivery has not been completed, is reasonable and the best estimate which the parties can arrive at as liquidated damages, and it is therefore agreed that said amount will be withheld from payments due the Contractor or otherwise collected from the Contractor as liquidated damages.
- b. Saturdays, Sundays, holidays and days whereas the Department has suspended work shall not be assessable days.

Environmental Issues

- a. Attention of the bidder is invited to the **Land Reclamation Act, Chapter 444, Laws of 1971, (House Bill 519)** and the necessity for compliance if applicable. The Contractor shall take necessary precautions and shall schedule and conduct his operations so as to avoid or minimize siltation of streams while removing gravel there from.

Prohibition Of Employment Of Unauthorized Aliens:

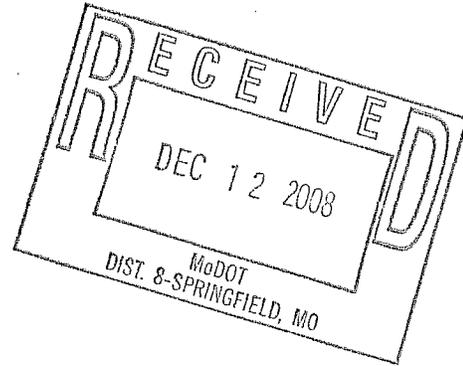
- a. Pursuant to RSMo 285.530 (1), no business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri. As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state-administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)] A copy of the affidavit referenced above is provided within this document.



MEMORANDUM

Missouri Department of Transportation Construction - Materials Central Laboratory

TO: Kirk Juranas-8ao
CC/ATT: Kirk Juranas-8ao *—BURR PITCH FORI*
Gary Goessmann-8ma
FROM: Alan Miller *ADM*
Geotechnical Engineer
DATE: December 11, 2008
SUBJECT: Materials
Geotechnical Section
Slide Investigation
Job No. N/A
Route 14, Christian County



In response to a request from Gary Goessmann, we have conducted a field investigation to determine the cause of and possible corrective measures for a slide that has occurred on the backslope of Route 14 between Station 0+00 and 1+47 as shown in Figure 1. Figure 2 is a summary sheet of a disturbed sample boring and Figure 3 shows a typical repair. Also attached are logs of power auger borings.

Existing Conditions

The 1.5:1 backslope consists of red residual fat clay with scattered gravel, which classifies as CH by ASTM test methods. The fat clay overlies limestone at about elevation 1164. The limestone may be pinnacled.

Causes of Failure

The failure appears to have originated from placing a residual soil on too steep of a slope.

Recommendations

Gabion Faced MSE Wall (Figure 3) Station 0+00 to 1+47

Beginning at the top of the slope, bench and excavate the slope on a 1:1 until rock is encountered at about elevation 1164. Some pinnacles may be encountered and it may be necessary to use a rock hammer to level them off. The facing elements of the MSE wall or gabions should be kept a minimum of 10 feet from the vertical rock face. The residual clay may be reused to reconstruct a slope no steeper than 2.25:1 above the gabion faced MSE wall. For the design of the MSE wall, an angle of internal friction of 33 degrees may be used for the foundation material and 26 degrees for the retained fill material.

cs
j:\sublec\alan\Route 14 Christian Co slide ltr.doc
Attachments

ROUTE 14 MO DISTRICT 8 SHEET NO. 8
 STATE MO
 COUNTY CHRISTIAN
 PROJECT NO.
 CONTRACT ID.
 JOB NO.
 DATE 5-23-2008
 REVISED 12-30-2005
 "THIS MEDIA SHEET IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM."
 IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

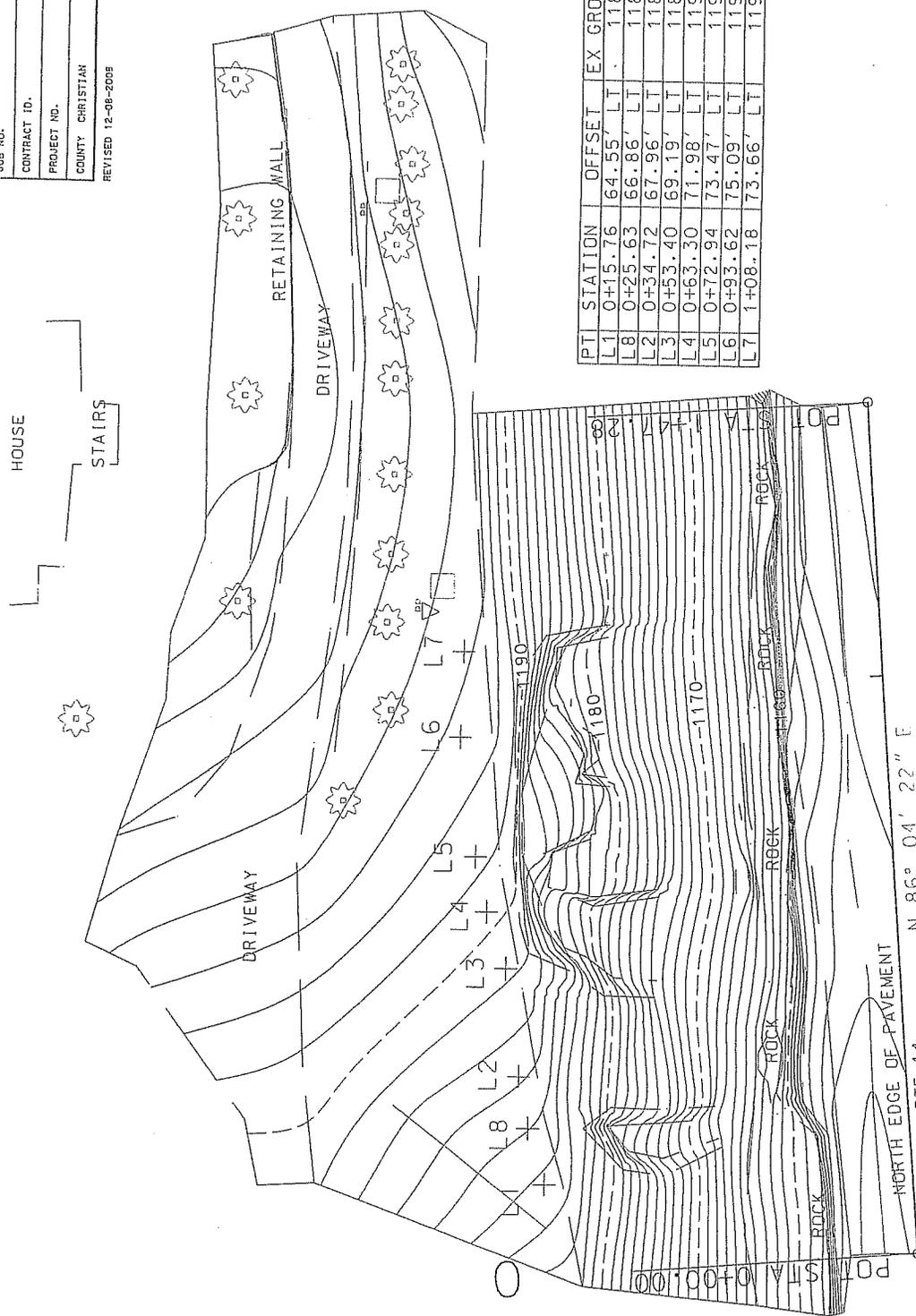


Figure 1
ROUTE 14, CHRISTIAN COUNTY
SLIDE AREA

INFORMATION IS IN THE J8S0787
 PROJECTWISE LOCATION
 SLIDETOPO02.TIN
 JOB001.GPK
 * CONTOURS ARE ON DEFAULT LEVEL 0

DEPTH AND DESCRIPTION		Consolidation Parameters										Shear Data							
DEPTH	DESCRIPTION	Wt%	γ _{sat}	LL	PI	ASTM Class	P.P.	T _v	Q _{u2}	Type Test	σ ₁	c	SPT Blows/6"	N ₅₀	e _c	e _z	C _c	σ _v (ft ²)	
0.0-5.0'	Brown lean clay, scattered gravel, moist, stiff.	34.1	116.9																
5.0-6.5'	Red mottled fat clay, trace gravel, moist, stiff.	52.2	105.9	51	31	CH	2.5						2-4-6	12					
6.5-13.0'	Red mottled fat clay, scattered gravel, trace cobbles, moist, very stiff.	48.2	107.9	66	42	CH	3.0						2-3-7	12					
13.0-15.6'	Red mottled fat clay, trace gravel, moist, very stiff.	49.1	107.4				4.0						5-5-6	13					
15.6-17.5'	Encountered scattered boulders.	50.5	106.8				3.0						5-6-7	18					
17.5-25.7'	Red mottled fat clay, trace highly weathered limestone, moist, very stiff.												3-4-7	13					
25.7-25.9'	Rock, moderately hard, probably limestone.												4-22-24	54					
25.9-35.9'	Gray, thin bedded, coarse grained, moderately hard, slightly weathered, cherty limestone.												2-4-12	19					
													32-10 in 1", then 10 blows, no advance						
													4-6 in 2", then 10 blows, no advance						

Coordinate System:
 Missouri Central 2402
 NAD 83 (CONUS)
 U.S. Survey Feet
 430691.0E; 1430000.0N

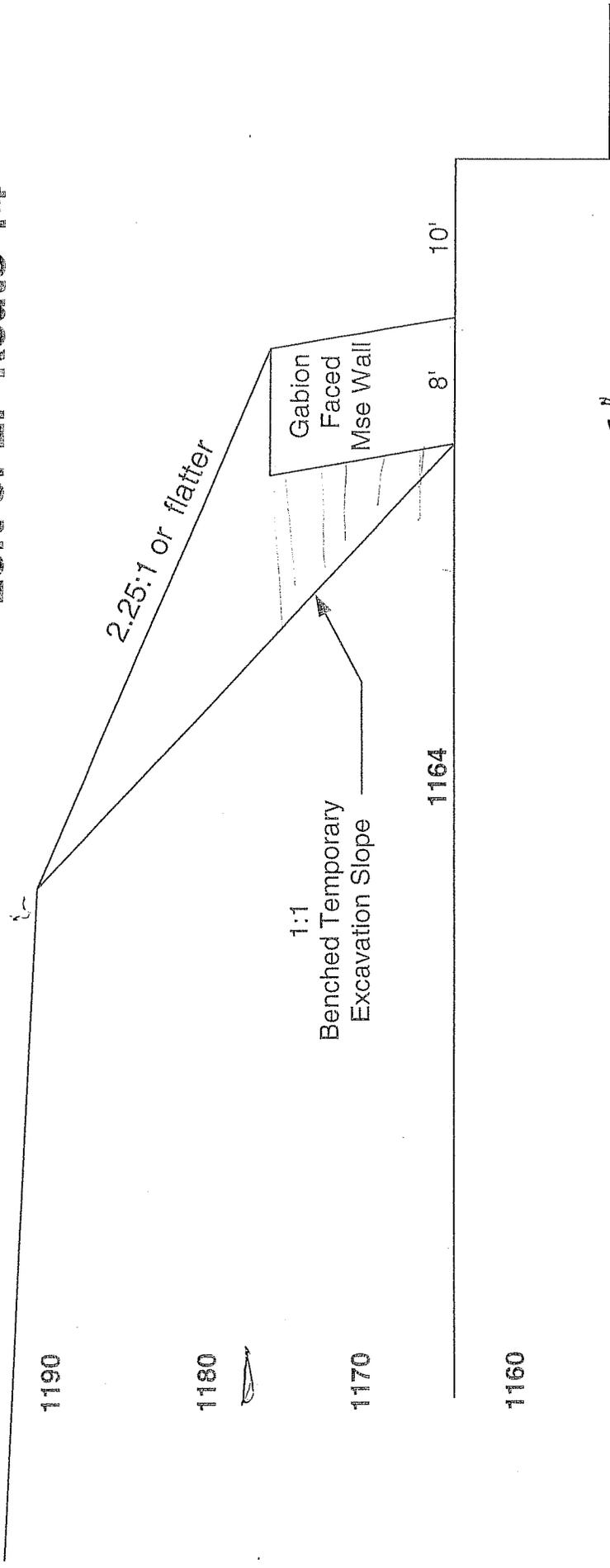
Coordinate System:
 Missouri Central 2402
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 430691.0E; 1430000.0N

Coordinate System:
 Missouri Central 2402
 NAD 83 (CONUS)
 U.S. Survey Feet
 430691.0E; 1430000.0N

Key:
 V Water Table
 P.P. Pocket Penetrometer
 T_v Torvane, torsional shear device
 S Slow or drained direct shear test
 R Consolidated drained triaxial shear test
 R₁ R test corrected for pore pressures

JOB NO.: WE-1184
 COUNTY: Christian
 ROUTE: 11
 STATION: 0+653.71, 9' LT.
 FILL HEIGHT: 11.84'

Figure 3
Gabion Faced MSE WALL
Route 14 Christian County
Station 0+00 to 1+47
Left of EP Route 14



78
 64
 14

Typical Section
 Not to Scale

MISSOURI DEPARTMENT OF TRANSPORTATION
Construction and Materials

BORING DATA

Sheet 1 of 2

Job No.: WE-----
 County: Christian Route: 14 Design: --
 Over: Slide Skew: --
 Logged by: R. Todd Operator: Snyder
 Equipment: 3" Augers Date of Work: 5/28/2008

Bent	Station	Location	Surface Elevation	Log of Materials *
L1	0+15.8 434678.2E	64.5' LT. 1429983.1N	1184.9	0.0-6.9' Brown lean clay, abundant gravel, scattered cobbles, moist, stiff. 6.9-10.0' Reddish-brown fat clay, trace gravel, moist, stiff. 10.0-10.3' Rock, moderately hard, probably limestone.
L8	0+25.6 434681.2E	66.9' LT. 1429983.1N	1185.9	0.0-6.4' Brown fat clay, abundant gravel, scattered cobbles, moist. 6.4-12.2' Reddish-brown fat clay, scattered gravel, moist. 12.2-14.3' Tan-brown fat clay, trace gravel, moist. 14.3-23.0' Red fat clay, highly weathered limestone, moist. 23.0-23.4' Rock, moderately hard, probably limestone.
L2	0+34.7 434682.9E	67.9' LT. 1430001.8N	1187.4	0.0-4.0' Brown lean clay, abundant gravel, scattered cobbles, moist. 4.0-12.0' Reddish-brown fat clay, scattered gravel, moist, stiff. 12.0-23.3' Tan-brown fat clay, trace gravel, moist. 23.3-23.7' Rock, moderately hard, probably limestone.
L3	0+53.4 434685.4E	69.2' LT. 1430020.3	1189.3	0.0-4.5' Brown lean clay, abundant gravel, scattered cobbles, moist, stiff. 4.5-23.1' Reddish-brown fat clay, scattered gravel, moist. 23.1-25.2' Reddish-brown fat clay, scattered gravel, trace cobbles, moist, stiff. 25.2-25.6' Rock, moderately hard, probably limestone.
L5	0+72.9 434691.0E	73.5' LT. 1430039.5N	1191.5	0.0-6.2' Brown fat clay, abundant gravel, moist, stiff. 6.2-26.2' Reddish-brown fat clay, scattered gravel, moist. 26.2-26.8' Slightly weathered limestone. 26.8-27.2' Rock, moderately hard, probably limestone.
L6	0+94.4 434694.1E	69.4' LT. 1430060.0N	1192.2	0.0-9.0' Brown fat clay, abundant gravel, scattered cobbles, moist, stiff. 9.0-28.0' Reddish-brown fat clay, scattered gravel, moist. 28.0-29.4' Rock, moderately hard, probably limestone.
L7	1+8.2 434693.6E	73.7' LT. 1430074.7N	1193.4	0.0-9.4' Brown fat clay, abundant gravel, moist, stiff. 9.4-19.0' Reddish-brown fat clay, scattered gravel, moist. 19.0-19.4' Rock, moderately hard, probably limestone.

Coordinate System: Modified U.S. State Plane 1983 Coordinate Zone: Missouri Central 2402
 Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet Coordinate Projection Factor: 1.0000751

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MISSOURI DEPARTMENT OF TRANSPORTATION
Construction and Materials

BORING DATA (CORE & SPT)

Sheet 2 of 2

Job No.: WE-----
 County: Christian Route: 14
 Over: Slide
 Logged by: R. Todd
 Equipment: Versa Drill 4000 TR-2
 Hole Stab. by: Hollow Stem Augers
 Automatic Hammer Efficiency: 70 %
 Design: --
 Skew: --
 Operator: Snyder
 Drillers Hole No.: B-08-26
 Date of Work: 5/28/2008
 Drill No.: G-8690

Bent	Station	Location	Surface Elevation
L4	434691.0E	1430030.0N	1190.5

TEST DATA					
Depth, ft.	SPT Blows/6"	N ₆₀	P.P., tsf	Tv., tsf	Wn %
2.5	2-4-6	12	2.75		34.1
5.0	2-3-7	12	2.5		52.2
7.5	5-5-6	13	3.0		48.2
10.0	5-8-7	18	4.0		49.1
12.5	3-4-7	13	3.0		50.5
15.0	4-22-24	54	4.0		
17.5	2-4-12	19	3.0		
20.0	33-10 in 1", then 10 blows, no advance		Limestone		
22.5	5-9-10				
25.0	4-6 in 2", then 10 blows, no advance				

SOIL CLASSIFICATION TEST DATA				
Depth, ft.	LL	PI	ASTM Class.	
5.0	51	31	CH	
7.5	68	42	CH	
15.0	72	39	CH	
20.0	76	46	CH	

CORING LOG (NX Double Tube Barrel)						
From	To	Run	Rec	Loss	% RQD	Notes
25.9	30.9	5.0	5.0	0.0	30	
30.9	35.9	5.0	5.0	0.0	41	

WATER TABLE OBSERVATIONS			
Date	Time Change	Depth Hole Open	Depth To Water
5/29/2008	1 hour	13.0'	Dry

LOG OF MATERIALS*

0.0-5.0' Brown lean clay, scattered gravel, moist, stiff.
 5.0-6.5' Red mottled fat clay, trace gravel, moist, stiff.
 6.5-13.0' Red mottled fat clay, scattered gravel, trace cobbles, moist, very stiff.
 13.0-15.6' Red mottled fat clay, trace gravel, moist, very stiff.
 15.6-17.5' Encountered scattered boulders.
 17.5-25.7' Red mottled fat clay, trace highly weathered limestone, moist, very stiff.
 25.7-25.9' Rock, moderately hard, probably weathered limestone, cut with rockbit.
 25.9-35.9' Gray, thin bedded, coarse grained, moderately hard, slightly weathered, cherty limestone.

UNCONFINED COMPRESSIVE STRENGTH

TEST DATA		
Depth, ft.	Qu, tsf	P.P., tsf
29.6	983.9	9.0+
34.1	1664.1	9.0+

UNIT WEIGHTS			
Depth, ft.	γ _{sat} , pcf	γ _{moist} , pcf	% _{sat}
2.5	116.9		100 ⁽¹⁾
5.0	105.9		100 ⁽¹⁾
7.5	107.9		100 ⁽¹⁾
10.0	107.4		100 ⁽¹⁾
15.0	106.8		100 ⁽¹⁾

(1) Assumed
(2) Actual

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 Coordinate Datum: NAD 83 (CONUS) Coordinate Units: U.S. Survey Feet Coordinate Projection Factor: 1.0000751

N₆₀ - Corrected N value for standard 60% SPT efficiency.
 Em - Measured transfer efficiency in percent.
 Nm - Observed N-value.

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